# MORRIS LOEB

1863 - 1912

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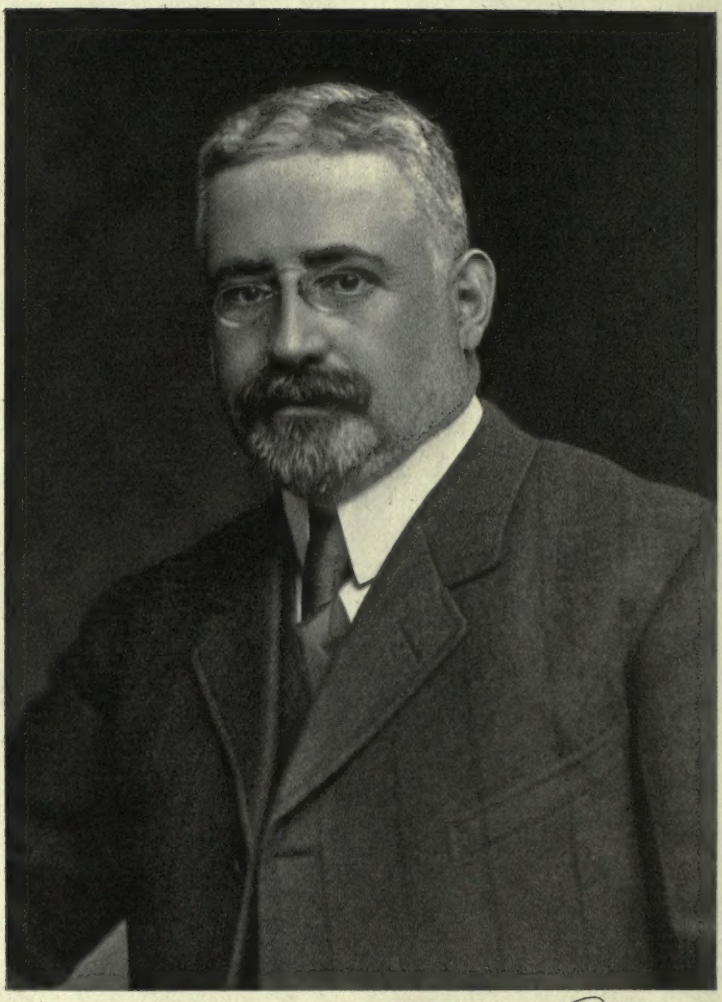

# MORRIS LOEB

## 1863–1912

## MEMORIAL VOLUME

NEW YORK
PRIVATELY PRINTED
FOR
THE CHEMISTS' CLUB
1913

## RESOLUTIONS OF THE TRUSTEES OF THE CHEMISTS' CLUB

AT A meeting of the Trustees of the Chemists' Club, held October 8, 1912, it was ordered that the following preamble and resolution be filed:

WHEREAS Morris Loeb, the President of the Club, has been taken from us by death, and

WHEREAS he was the leading spirit in bringing to fulfillment ambitions and plans that had long been ours, and

WHEREAS he was always ready to shoulder burdens and to give help, and

WHEREAS he was a man of order, and of integrity in mind and in heart, sincere in scholarship, living without malice or scorn, speaking no evil, and generous in judgment, and

WHEREAS we were drawn to him by ties of deep and abiding affection, now, therefore, be it

RESOLVED that we make this minute of our poignant grief at his passing, and that we cherish his memory as another of his great gifts to science and to humanity.

ELLWOOD HENDRICK,
CLIFFORD RICHARDSON,
WALTER E. ROWLEY,
*Committee.*

## RESOLUTIONS OF THE DIRECTORS OF THE CHEMISTS' BUILDING COMPANY

WHEREAS our President, Dr. Morris Loeb, has been taken from us by death while in the prime of his vigor and in the fullness of his active and valuable career.

RESOLVED that the following minute be spread upon the record, and that a copy be sent to his family.

Due largely to the earnest personal effort and unremitting labor of Dr. Morris Loeb, the Chemists' Building has become a fact and it stands as a material expression of his great interest in the chemist and his welfare. President of the Chemists' Building Company since its formation, and the initiator of the project of a home and central meeting place for the chemists of the country, Doctor Loeb is deeply mourned by all whose good fortune it was to know him, and by none more sincerely than by his associates in this Company.

W. H. NICHOLS, JR.
ALBERT PLAUT.

# PROCEEDINGS OF THE MEMORIAL MEETING OF THE CHEMISTS' CLUB OCTOBER 30, 1912

## MORRIS LOEB AS A MAN

ADDRESS BY L. H. BAEKELAND

Cast forth thy Act, thy Word, into the ever-living, ever-working Universe; it is a seed-grain that cannot die; unnoticed to-day, it will be found flourishing as a banyan grove after a thousand years.—*Carlyle.*

MANY sad happenings in this world are accepted with silent stoicism because we are, in some measure, prepared for them. There are others which strike like a thunderbolt from a clear sky. Such was the announcement of the death of Morris Loeb.

Not so many days ago, he was among us in all the intensity of his active life, eagerly busy with the success of the International Congress of Applied Chemistry; guiding us by his example, helping us by every means at his disposal, sacrificing his personal comfort, taking no rest even after the first symptoms of the illness which has carried him away made his work very difficult—ever striving not to neglect anything that might contribute to the interest or the enjoyment of the visitors to the Congress.

He passed away as he has lived: never minding himself when catering to the welfare and the comforts of others.

If I had to sum up the character of Morris Loeb, if I had to give the key to his whole life, I would call him the incarnation of the sentiment of duty and service.

Most men act by necessity; others by example; others again are animated by greed, by vanity, or other regrettable impulse. Whoever knew Morris

Loeb intimately could perceive in every action, every thought, every effort, this sternly simple but sublime impulse of duty and service. Sometimes, his austerity in that direction went even to the point of disturbing his best friends, as well as heaping discomfort and sacrifice on himself.

I made his acquaintance some twenty years ago: met him regularly at our chemical meetings; then met him more intimately in the circle of his home life. The longer I knew him, the higher went my esteem, my affection for that unusual man, and the more his noble example stimulated me, as it has inspired so many others to better efforts.

I have had more than one lively discussion with him, where each of us was convinced of the strength of our own point of view; but in every instance did I leave him with greater respect and admiration. Those who saw him engaged in any action where he was combating, with all the directness of his honest convictions, anything he believed was not for the best of purposes, had to know him intimately in order to grasp fully the intense underlying kindness, the consideration for the feelings of others, which he harbored in his big soul. An insincere or selfish thought never crossed his mind.

His way of doing good was different from the drowsy apathy or the contemplative attitude of some dreamy reformers; neither did he fret away his energies on ideals of the unattainable kind; his life was a life of action, of work—not of dreams, and his action was always measured with rare forethought towards a well-defined purpose.

His parents, whose memory he worshiped, left him a large fortune; to their son this fortune appeared only

as a large responsibility—as a power to do good—as a means to help other men to do more good.

His philanthropy was not of the kind which limits itself to signing a substantial check, or organizing a charity-festival, or other similar kinds of alm-charities which perpetuate poverty and misery and make the poor poorer and the weak more helpless. His philanthropic work went to the root of things: it meant the fulness of his own personal efforts with all the discomforts or self-abnegation this frequently implied. Then again, this same austere man could often unbend to the point of great joviality when his ever-ready wit saw a humorous point in a situation. I was never able to discover the slightest trace of vanity or conceit in him, and this made him invulnerable against scheming flatterers.

What appeals to me as the greatest claim of gratitude from our profession is the leading part Morris Loeb took in making the Chemists' Club building an accomplished fact by infusing his own idealism throughout the whole enterprise. Thus he has succeeded in making of the Chemists' Club an institution whose good influence is already reaching out near and far over the whole country; not only has it hastened the healthy development of our chemical organizations, but it is at the same time contributing to the growing importance and increased usefulness of the chemical profession to the community itself.

Whoever saw him at work in this instance, knows how he conceived and carried out practically every part of that project from the financial start to the successful operation thereof; how he attended, personally, to the most trifling details, when he thought that by doing so he might better insure the proper

working of his carefully planned organization. Many a nook or corner of our Club house reminds us of his personal solicitude,—nay, of the very touch of his hands, where he helped to place a work of art or some other object of interest gathered purposely by him for the Club during his late travels.

The day of his death, October the eighth, was exactly the third anniversary of the date on which he signed the incorporation papers of the Chemists' Building Company.

Vividly do I remember the day when he first outlined to me the whole project: "It can be done," said he, "if we all work together. We can do it in such a dignified and direct way that nobody can claim that it is a one-man's affair or a gift. Neither should it be a cold-blooded business proposition, although it ought to be carried out on business lines. I know already a few men who are willing to guarantee a substantial subscription, and who may help me to find others to help us along." With characteristic consideration, he added: "Above all, it should be well understood that he who is unable to help financially, can still be a great contributor to the success of the work, if he will aid us by any personal effort, even if it be only by his enthusiasm."

In this instance, as always, he never mentioned his own name, and tried for a while to shield his identity by referring to "his acquaintances" or "some friends of his." This was ever his favorite way of designating any financial help he intended to furnish himself.

Even after the meeting at Toch's residence, where Bogert, Baskerville, Toch and myself, were present, several did not yet fully realize that Morris Loeb was going to furnish the initial funds.

If, in this instance, he contributed freely with his money, he rendered much greater service by his con-

tinuous personal work for three full years, until he was convinced that everything was as it ought to be, and the Chemists' Club was safe and sure.

Wherever he was, he found some way of being of service or help towards others. I am told that when he went to study in Germany, after graduating from Harvard, he there led the quiet, modest life of a hard-working student, and that, of the allowance his rich father sent him, very little was used for his own personal comfort, but most of it found its way to help others who never knew who had assisted them. Whatever he did in the matter of money contributions, he carefully arranged everything so as to keep himself in the background, but his personal work was ever so much the more in evidence.

Another one of his traits was that great feeling of reverence and gratitude towards some of his former professors as well as to his Harvard Alma Mater; but whatever he did was done as if he were a mere incident in it; even his intimate friends, who did not belong to Harvard, learned only by accident how he and his brother had made a foundation in honor of his departed professor, Wolcott Gibbs. And when last year, he organized the Wolcott Gibbs' Memorial Day at the Chemists' Club, and presented the bust of Wolcott Gibbs on that occasion, he kept himself very much in the background, although attending painstakingly to every detail so as to make sure that nothing should mar the success of the event, which he had planned alone in his great love for his former teacher.

He abhorred any display of wealth or self-importance, and this made his company so much the more liked by his fellow chemists.

Those who knew his home life, will remember how he

filled his days, alternating his devotion to his duties and philanthropies with acts of kindness and consideration to his family, and his friends: all this frequently interwoven with banter and wit.

Having no children, he and his distinguished wife gave an outlet to their natural feelings by furthering the comfort and happiness of the children of their friends and by assisting the unfortunate children of the poor or helpless.

Of some men, it can be said: The whole world is their country, humanity is their family, and to do good is their religion. Morris Loeb was one of such men.

Whatever there was to be done, one could count on him. Whether the matter was very important or not, once he had accepted to serve, he never disappointed. When he had accepted membership on some committee or another, he was punctual at the meetings, and only very urgent matters could keep him away. Whenever he participated in anything, he gave body and soul to it.

His frank speech, simple words, direct arguments never strove for rhetorical effect, but aimed only at convincing others of his own earnest opinion. I still see him with his manly bearing, his handsome head, his deep-thinking, big, honest eyes, which flashed conviction and sincerity into every one of his arguments, and gathered respect from all who listened to him, whether they were of his opinion or not.

Noble friend, all who have known you enough have been made better by your example.

We shall miss much, yes very much, your inspiring personality.

Yet, the mention of your name will often serve, to every one of us, as the guiding flash of a beacon, till we, too, shall reach the other shore.

# SCIENTIFIC CAREER OF MORRIS LOEB

ADDRESS BY CHARLES BASKERVILLE

MORRIS LOEB was a man in speaking of whom I wish I might have had time to choose my words with more deliberation. His nature showed itself always in such a refinement as to command its tracing only with the most delicate touch. Tender is the wound in losing a friend in science whom I had known for nearly twenty years—in fact, since the time he was the Secretary of the Section of Chemistry of the American Association at the Brooklyn meeting. At that time he was participating in the great task of habilitating the American Chemical Society with the history of which no doubt all here are familiar.

I wish I were able to fittingly tell you of the spirit actuating him at that time, as it proved an inspiration to me then, and afterwards served to cement a friendship into a closer personal relationship.

Born and reared in wealth, a great plan in the business world ready for his acceptance, while gaining a broad culture at Harvard, he inhaled the breath of Wolcott Gibbs' scientific spirit, which carried him to Hofmann at Berlin. Three papers were published by him while at Berlin, the last being his dissertation.[1] All dealt with carbonyl chloride and its conduct with various amidines. This work was interesting and possessed that normal importance to the candidate for a degree;

[1] "Ueber die Einwirkung von Phosgen auf Aethenyldiphenyldiamin," *Berichte der deutschen chemischen Gesellschaft*, Vol. 18, p. 2427 (1885). "Ueber Amidinderivate," *Ibidem*, Vol. 19, p. 2340 (1886). "Das Phosgen und seine Abkömmlinge, nebst einigen Beiträgen zu deren Kenntnis," Inaugural Dissertation, 15. März, I. Chem. Labor. d. Berlin Univ.; *Chemisches Zentralblatt*, Vol. 58, p. 635 (1887).

but Loeb was not satisfied. That was in 1887. The roving ardor of an awakening of physical chemistry was in the air. It carried him to Heidelberg and then to Leipzig to be with Ostwald, who had just made Arrhenius a real power.

By the advice of Ostwald, Loeb undertook to study the molecular weight of iodine in its solutions by the vapor-tension method.[1] His experimental results led him to conclude: "It seems very probable that iodine in its red solutions has a molecular weight corresponding to $I_4$, while in the violet solution in carbon disulphide there is a less complex aggregation, giving a value between $I_2$ and $I_3$." He found that the method of determining molecular weights by the depression of the freezing point was preferable to the method by vapor tensions. He lacked a liquid which would solidify and also dissolve iodine with a pure violet color; but he endeavored to obtain what corroborative evidence he could by experimenting on the freezing points of iodine in acetic acid and in benzene, although he was eventually forced to give up the attempt by the very slight solubility of iodine in these menstrua at low temperatures. The molecular weight of iodine as calculated from various series of observations seemed to increase continuously with the concentration, so that there was no point in the narrow limits between extreme dilution and saturation at which the molecular weight would appear constant and could be accepted as trustworthy. This was later confirmed by Paterno and Nasini.[2]

[1] "Ueber den Molekularzustand des gelösten Jods," *Zeitschrift für Physikalische Chemie, Stöchiometrie und Verwandschaftslehre*, Vol. 2, p. 606. "The molecular weight of iodine in its solutions," *Transactions of the Chemical Society of London*, Vol. 53, p. 805.

[2] *Berichte der deutschen chemische Gesellschaft*, Vol. 21, p. 2153.

With the intention of testing the then latest views on electrolysis, work in which field he had begun with Gibbs, while still at Leipzig, Loeb, with Nernst, carried on a study of the kinetics of substances in solution.[1] From determinations of Hittorf's ratios of transference and the conductivity of a number of silver salts, they calculated the ionic velocity of silver, according to the principles laid down by Kohlrausch. The constancy of the value obtained from observations with eight different salts gave satisfactory evidence for the truth of the theory, the numbers varying only within very narrow limits. Loeb and Nernst also gave the calculated values for the velocities of the other ions, and it further appeared from a comparison with the temperature coefficients of the velocities that they decreased as the velocity increased.[2]

Loeb then felt ready to come back to the master who had changed his course in life and to tell him what they were doing in Europe. So in 1888–89 he returned as voluntary assistant to Gibbs, who had retired from Cambridge to his private laboratory at Newport. After a year, Gibbs realized Loeb's power as a teacher and made him go to Clark University as docent in chemistry.

In a report on "Osmotic Pressure and the Determination of Molecular Weights,"[3] Loeb discussed Raoult's law, the matured papers of van't Hoff on osmotic

[1] "Zur Kinetik der in Lösung befindlichen Körper. Zweite Abhandlung. Ueberführungszahlen und Leitvermögen einiger Silbersalze von Morris Loeb and W. Nernst," *Zeitschrift für Physikalische Chemie, Stöchiometrie und Verwandschafslehre*, Vol. 2, p. 948.

[2] Loeb also published in this year a paper on the "Use of Aniline as an Absorbent of Cyanogen in Gas Analysis," *Transactions of the Chemical Society of London*, Vol. 53, p. 812 (1888).

[3] *American Chemical Journal*, Vol. 12, pp. 130–135.

pressure, the measurement of osmotic pressure, and the methods of determining the molecular weight from the vapor tension. At this time (1890) experimental data to show the value of Beckmann's method had not been published, but Loeb predicted that it would play as great a part as the freezing point method introduced in its most convenient form by the same chemist.

Shortly afterwards, in a review, Loeb sketched Arrhenius' hypothesis, with some of its logical consequences.[1] He discussed the physical and chemical objections known in 1890, leaving "the task of judging it . . . to those readers who will compare the mass of experimental material and will convince themselves of the simple relations which the various phenomena appear to bear toward each other." As far as this test is concerned, Loeb maintained "the hypothesis will be found to fulfil its purposes."

In the exact measurement of electric currents, employing the method wherein the determination of the amount of silver deposited from a neutral solution of a silver salt is made, the source of error, particularly where weak currents are concerned, arises from the imperfect adhesion of the silver upon the cathode. The latter is generally a platinum crucible, and Loeb[2] found that a Gooch crucible with asbestos felting over the holes was a far better form of cathode, providing an arrangement was adapted to hold the solution during electrolysis without leaking. He attained this very satisfactorily by replacing the ordinary platinum cap with a glass siphon of special form.

[1] "The Electrolytic Dissociation—Hypothesis of Svante Arrhenius," *American Chemical Journal*, Vol. 12, pp. 506–516.

[2] "The Use of the Gooch Crucible as a Silver Voltameter," *Journal of the American Chemical Society*, Vol. 12, p. 300.

Then, when but twenty-eight years of age, he was called to the Chair of Chemistry at New York University. He published a paper entitled "Apparatus for the Delineation of Curved Surfaces, in Illustration of the Properties of Gases, etc."[1]

Professor Loeb thought that, just as an electric system is affected by its approach to or removal from a magnetic field, a reaction which made a system more or less amenable to magnetic action might show evidence of acceleration or retardation by the magnetic force. He concluded that if this effect were appreciable, the relation between magnetic force and affinity would be established, and data could be obtained for calculating the real value of magnetization. His experimental results, however, were negative, and he was led to believe that no such relation existed, unless it was so slight that his means of observation were inadequate.[2]

It was shortly after this that I met Morris Loeb. He was fired with the zeal of those captain teachers and his own lighted torch he passed on by students of his who now reflect in many responsible positions that spirit of the eighties.

Soon the very heavy responsibilities of a large inheritance fell upon him. Filial duty of meeting those responsibilities, professorial obligations, and research aspirations required the sacrifice of one of the three. The last was sacrificed for a dozen years. The irksome strain of being "by bells directed" began to tell, for to meet them he found it necessary to have his secretary travel with him. One morning he asked me to go with him to the University. We talked things over and he

[1] *Journal of the American Chemical Society*, Vol. 13, p. 263.

[2] "Is Chemical Action Affected by Magnetism?" *American Chemical Journal*, Vol. 13, pp. 145–153.

said he would have to give up the professorship, but would equip a private laboratory in the old Chemists' Club, where he would be nearer his philanthropic obligations and might do some research, and "other things" perhaps as useful to chemistry as teaching.

In 1905 he published a research on "The Crystallization of Sodium Iodide from Alcohols."[1] He found that apparently the molecular proportion of alcohol assimilated by sodium iodide decreased as the series ascended. The addition products determined were: $NaI.3CH_4O$, $NaI.C_2H_6O$, and $5NaI.3C_3H_8O$.

In 1908, ever keeping abreast with the advances in physical chemistry, in a paper on the "Hypothesis of Radiant Matter,"[2] Loeb enumerated the objections which might be urged against the views which then obtained respecting radioactive processes.

In 1909 he assumed the duties of Chairman of the New York section of the American Chemists Society. The task of maintaining the high standard of the meetings set by his predecessor was no mean one, for Baekeland, with his customary enthusiasm, had raised the New York Section to its greatest efficiency. Loeb devoted himself to the welfare of the Section with unremitting energy. I am keenly appreciative of what he did for the Section, as it fell to my lot to take up the task where he left it. The opportunities of the office were increased, for he had enlarged the responsibilities, as was well shown in his inaugural address that year.[3]

He did publish (1910) a paper on the "Analysis of

[1] *Journal of the American Chemical Society*, Vol. 27, p. 1019.

[2] *Popular Science Monthly*, Vol. 73, p. 62.

[3] *Science*, Vol. 30, p. 664.

Some Bolivian Bronzes" (with S. R. Morey),[1] and he wanted to gratify his great love for research and he did have work in progress in his private laboratory; but, in his characteristic fashion, he sacrificed personal desires to do those things he could do and others could not or were disinclined to do. We are assembled in one of the monumental evidences of this immolition.[2] He made possible the new Wolcott Gibbs Laboratory for Physical Chemistry at Harvard. In the *Proceedings of the American Chemical Society* for 1910[3] he published a beautiful obituary of Gibbs, affectionately respectful, rich in reminiscence and earnest in diction. In this hall we have an evidence of his affection for the master. Loeb visited the South American countries in behalf of the recent International Congress of Applied Chemistry. He worked long and hard on important committees in connection with the Congress. These were some of the "other things" he found to do for Chemistry.

The shock of Morris Loeb's death still oppresses us; but I am convinced that as time passes, and as we reach a juster evaluation of events, we shall become more and more sensitive of what this man's life really meant, and learn from it what our profession really means. He sought no office; he sought only opportunities to serve his fellow-men. He did it all with a sweet dignity that spells humility. For

*Not in hewn stones, nor in well fashioned beams,*
*Not in the noblest of all the builder's dreams;*
*But in the courageous man of purpose great,*
*There is the fortress, there is the living state.*

[1] *Journal of the American Chemical Society*, Vol. 32, p. 652. During 1909–1910, Dr. Loeb abstracted the Italian journals for *Chemical Abstracts*.

[2] See Loeb's address at the opening of the Chemists' Club, in *Metallurgical and Chemical Engineering*, Vol. 9, p. 177 (1911).

[3] Pp. 69–75.

## MORRIS LOEB AS A PHILANTHROPIST

ADDRESS BY MAXIMILIAN TOCH

NOT by force and not by might, but by a gentle and kindly spirit did Morris Loeb guide all those whom he knew. It is about fourteen years since I first began to know him well, and I shall always be grateful to the Chemists' Club that my casual acquaintance with him ripened into a deep and lasting friendship. In the early days of our club we were near neighbors and we frequently walked home together on Friday nights. I am not going to extol his qualities to you, for I could talk much longer than the time allotted and then I would only give you a preface, but I shall tell you two or three incidents with which you are unfamiliar, so that we may all profit by his beautiful example.

He never did anything ostentatiously; he never gave so that his left hand knew what his right hand did; he always exacted that his deeds should remain unexploited. One Friday night he sat next to me and told me that he knew I was interested in a certain charitable institution, and he slipped a check for a large sum into my hand and whispered in my ear: "This is so that you may be encouraged in your work." Then he quietly withdrew before I could get a chance to thank him.

When I retired as president of this club I made the statement that I would really never retire from active work until we had a clubhouse of our own. Doctor Loeb sat in the front row listening intently to what I had to say, and the very next day he told me that he would subscribe the very large amount which he did. And it was a long time before he would permit me to publish his contribution, which he afterward so generously increased.

About seven or eight years ago it was Morris Loeb who suggested that the Bureau of Employment be started.

He always believed in preventive philanthropy rather than in remedial charity, although I know scores of cases where he helped men who were out of work until they could find suitable employment.

Doctor Loeb was connected with a great number of charities. He was President of the Hebrew Technical Institute for Boys, President of the Solomon and Betty Loeb Memorial Home—a monument that he erected in memory of his parents and in the management of which he took an active part—and a member of many other charitable institutions, a list of which would be long indeed. He was connected with and gave of his time and money to the Baron de Hirsch Fund, and was a director of the Jewish Agricultural and Industrial Aid Society. The mystery of it all was that he was able to attend to even the smallest details of these institutions and yet have time left for scientific research. If you think over and take the measure of this man you can truly say, "his like existeth not."

He was a true minister unto his fellow-man. The shock of his death will leave its effect upon us for a long time, but it is a consolation to us to know that he lived, for in his life he left the imprint of kindness and of goodness. We shall mourn him for all time, but in our grief let us not forget that we are better, more unselfish, and more tolerant on account of the example he has set, and when the time comes for us to go into the valley of the shadow, let it be said that the spirit and the teaching of Morris Loeb did much to guide us.

## MORRIS LOEB AS A TEACHER

ADDRESS BY ARTHUR E. HILL

MORRIS LOEB entered upon his work as a teacher in the year 1889, when he became Docent in Chemistry at Clark University, a position which he held for two years. In 1891 he became Professor of Chemistry at New York University and held that position until his retirement from teaching in 1906.

At New York University Doctor Loeb met the problem of developing a department of chemistry from a single year's course. He attacked the problem with his characteristic vigor, and by the time of the removal of the University to its new site in 1894, he had accomplished this end. A series of college courses in chemistry were organized to run through the four years of one of the college groups, and in 1898 a complete curriculum in chemical engineering was likewise adopted.

Together with the development of new courses came the arrangements for new quarters. In 1894 the Havemeyer Chemical Laboratory was completed at University Heights under the careful direction of Doctor Loeb. To its planning and building he gave the same detailed care with which his friends in the Chemists' Club are familiar.

The work of an active teacher like Doctor Loeb is rarely restricted to his own department. It was natural that a man of ideas, such as Doctor Loeb was, would be influential in faculty circles, and it may be said that the general curriculum of the college of New York University was largely influenced by his ideas. The group system, which was adopted in 1894, was planned by a committee consisting of the Chancellor of the

University and Doctor Loeb, and the system is still in successful use at the University. Planned at a time when many of the American colleges were tending toward an excessive development of the free elective system, the group system has survived this period and is now being adopted by many American colleges. It stands as a monument to Doctor Loeb's educational foresight.

During the fifteen years of Doctor Loeb's professorship his influence in the Faculty and in his department was always strong on the side of conscientious teaching and high scholastic ideals. His colleagues and his pupils cherish the memory of their association with this strong and high-minded gentleman.

## MORRIS LOEB AND HARVARD

### Letter from Clifford Richardson

MORRIS LOEB was a most devoted and enthusiastic Harvard man, graduating from that University in the same class with Pennock in 1883. He took his Ph.D. in Berlin in 1887, and returned to Harvard to become assistant to Prof. Wolcott Gibbs in 1888–1889. Although leaving the University in the latter year, his interest in it continued. For a number of years, and up to the time of his death, he was a member of the committee appointed by the overseers to visit the chemical laboratory, and I was associated with him during the entire period of his activity on that committee. He soon saw the necessity of increased facilities at Cambridge for the Chemical Department, and with his brother some years ago offered fifty thousand dollars for the construction of a laboratory to be named after Doctor Gibbs, on condition that an additional sum of the same amount be raised by the College for the same purpose. The entire amount was obtained in a short time, and the Wolcott Gibbs Laboratory, which is to be devoted to the work of Dr. Theodore W. Richards, will soon be completed, as one of the units in a larger plan involving the construction of seven other buildings to be devoted to other branches of chemistry, one of which will consist of an administration building and large lecture hall. No one has done more for the development of chemistry at Harvard than Morris Loeb.

Within the last few years he has interested himself also in forming the Association of Harvard Chemists, which consists of a membership of more than two hundred graduates. At the time of his death he was its president,

and one of his last kindly acts was an invitation to the members of this association, at the time of the meeting of the International Congress of Applied Chemistry in New York, to lunch with him at Seabright. Of the forty or more members who accepted his invitation, all will remember in the most pleasant way his courteous hospitality.

In Morris Loeb's death Harvard has lost one of its best friends, and the Chemical Department of the College one of its most enthusiastic supporters, and Harvard chemists will have great difficulty in finding any one to fill the place which he had made for himself among them.

# MEMORIES OF A CLASSMATE AT HARVARD

## Letter from J. D. Pennock

LOEB'S life at Harvard during the period 1879–1883, I am satisfied, was most enjoyable. He entered fully into the activities of the college of that time, and his fondness for music and his skill as a violinist made him at once prominent in the college orchestra, the Pierian Sodality, of which latter he was President. His literary inclinations and attainments made for him a place in the most literary society in college and he was a member of the best social clubs.

In scholarship he ranked with the leaders in the Class, taking honors in "Classics" as well as in chemistry. He was one of four members of the class to deliver addresses at graduation, the title of his being "Chemistry before the Nineteenth Century." In recognition of his high standing in scholarship he was elected to the Phi Beta Kappa Society. He learned with the greatest facility and his spare time after accomplishing the set task for the day was spent in general reading. He was one of the youngest men in our class, being only sixteen when he entered college.

His thoughtfulness for the welfare and happiness of others, which in after years was exhibited to such a marked degree, and which to me was the keynote of his life, was evident all through his college course. Few knew at the time how far his beneficence extended. His was not only material help to the needy student, but a kindly word of encouragement as well.

Although his superiority in attainments and capacity was evident to most of his classmates, his attitude

toward those less brilliantly endowed was that of kindly consideration and helpfulness.

At our class reunions he was always most happy in his response to the toast "Chemistry." His remarks scintillated with wit and humor: his story was always well told and most apropos.

While Loeb was most charitable in his judgment of a student who occasionally "went wrong" through the excitement of an athletic victory, still for one who habitually idled away his time he had no sympathy. In a letter to our Class Secretary, Loeb, who was working in Hoffman's Laboratory in 1886, writes as follows regarding the life of the students: "I confess I came here with prejudices which I regret to say have been strengthened. While I have no reason to complain of either instructors or fellow-students, I was sorry to find a materialism in the aims of life, a pedantic ignorance of all things outside of their own particular branch of study, for which I was not prepared. If you add that most students live unwholesomely, studiously shut themselves out from most refining influences and spend the time, which in America is wasted on athletics and the like, in beer drinking, you will understand my main grounds of criticism."

No alumnus of any university was ever more loyal to his Alma Mater than was Loeb to Harvard. For years he served on the committee to visit the chemical laboratories, gave freely of his thought and energy for the benefit of the Chemical Department and, with his brother, made possible the beautiful Gibbs Memorial Laboratory which is now approaching completion. The loss to the Harvard Chemical Department in his death will be irreparable. His sound judgment and wise counsel particularly at the present, during the period of con-

struction of the new laboratories, will be greatly missed.

You all know of his kindly affection for his teachers —how often have we heard him speak of Wolcott Gibbs, Hill, Cooke and Jackson with kindly feelings! Well I remember on a day in June last, when I was discussing with him the Harvard Chemical Department, he suggested that the Chemical Alumni ought to present Professor Jackson, as he was about to retire, with some token of their esteem and affection, and knowing of Professor Jackson's fondness for flowers we started out to get a vase, and in our search for one that would be artistic as well as serviceable, I was deeply impressed as we went from place to place, first with the thoroughness which was characteristic of everything that Loeb did, and second with the artistic taste which he displayed. And then a few days later, on the occasion of the annual dinner of the Chemical Alumni, Loeb in his inimitably happy manner presented the vase to his dear old teacher.

Loeb had an abhorrence of narrowness: he had no use for the student or professor who was only a bookworm or who spent all his time in his laboratory. The college professor, he believed, should be democratic, should have a human side to his nature: and by all means fraternize freely with his fellow-chemists and the beautiful Chemists' Club building will forever stand as a memorial to him, and as an expression of his belief in the necessity for a social side to the chemists' life.

## AN APPRECIATION

### Address by Ellwood Hendrick

THE other day I asked a man who has devoted his life to the production of plays to solve this problem for me: "Let x equal the scenario or plot, and y equal the lines. Then x plus y equals the play or 100. Give me the values of x and y." Without a moment's hesitation he said, "The plot is 85% and everything that is said is not over 15%." I find this opinion general among those who write or produce plays: what is done is of vast importance; what is said has so little bearing.

Well, the drama of the life of Morris Loeb is ended and the last curtain is down. Our tributes are merely lines. We cannot make good the equation. We have the loving memory of him in our hearts, which is a great heritage, but we shall always remain his debtors. Praise will not pay our obligations nor will eulogy make good the loss.

We have seen how the passing of a modest man who never sought praise falls as a shock and a keen hurt to a great community. It means that there was a Great Order in his life that had no more relation to mere arrangements of words than has the solution of a great problem in science. That is why praise seems awkward and gratitude so ineffective. The life of Morris Loeb was a marvelous arrangement of rich talents with the wants of life as he found it. It met us in innumerable ways and always to our good. What he was, what he did, has helped thousands and will help thousands more. We cannot fathom its benefits. And now it is beyond us. In the measure that we bear love to his memory let us strive mightily to bring to abundant fulfillment whatever work we had in common.

# BERLIN REMINISCENCES

## An Address by Walker Bowman

YOU have already heard much said about our deceased friend as a scientist, as a philanthropist, and as a man devoted to art and letters: I am going to speak of him as a companion and fellow-student during several years' association at the University of Berlin.

In the fall of 1885, twenty-seven years ago, after spending a semester at Göttingen and one at Heidelberg, I went to Berlin to continue my studies in chemistry, and there, soon after arriving, met Morris Loeb for the first time. From that date on for two years, until he took his doctor's degree in 1887, I was often in his company, and, at the close of his stay in Berlin, had the satisfaction and honor of being chosen by him as one of his three "Opponenten" at the public discussion of his thesis, and was also a guest at the closing scene of his student career in Berlin, his Doctor's Kneipe.

During these years we met frequently at various student gatherings, especially those of the American- and English-speaking students, at the meetings of the American Kneipe and on such occasions as Fourth of July and other holiday celebrations, excursions on foot or otherwise in the surrounding country, match games of baseball between the Berlin nine and visiting teams from other universities. His "Bude" in Berlin was also a frequent meeting place, where he often entertained his friends in a most hospitable and interesting manner. Many were the evenings we spent there, enlivened by songs, stories and student gossip, not excluding at times certain athletic exercises, more amusing perhaps

than dignified, such as leap-frog, high-kicking stunts and the like.

In all these functions of student life Loeb took a keen interest and an active part, and always contributed his share—and more—to the general mirth of the company. In fact, owing to his enthusiasm, activity, foresight and skill, he was recognized as the leader in many undertakings, and as time passed and we came to know him better, his modest, unassuming and sympathetic attitude gained for him not only the respect, but also the genuine affection of all his associates. Though irreproachable in his own life, he was yet very charitable in his judgment, and sparing in his criticism of those whose conduct might at times overstep the strict bounds of propriety. This spirit of toleration still further aroused the admiration and attracted the good-will of those with whom he was thrown in contact.

As only one of many examples of his generosity, thoughtfulness and constant wish and study to add to the pleasure and happiness of his companions, I will refer to a Fourth of July excursion, which a party of us, numbering eight or ten, made to Freienwalde on the Oder. We spent the day in athletic exercises and sports, baseball practice and visits on foot to the points of chief interest in the neighborhood. We were fortunate in having with us a student of photographic chemistry[1] and at the same time a skilled operator, who took photographs of the party under various circumstances. In order to provide us with a permanent souvenir of that happy day, Loeb had copies of the impressions made, mounted and neatly bound in an attractive volume, to which he added a number of humorous verses of his own composition, describing the events of the day. A copy

[1] Alfred Stieglitz.

of this volume was then presented by him to each member of the party. I have preserved mine to this day as a precious memento of his friendship and of those merry hours now long gone by.

Such acts as that endeared him to us all, and when he left Berlin to continue his studies elsewhere, we realized what a large factor he had been in our life, what a kind, helpful friend we had lost, ever ready with his advice, sympathy and open purse in furthering any worthy enterprise. As we students of Berlin missed him then, so we fellow-members of the Chemists' Club will miss him in the time to come.

Among the many admirable sides of our departed friend's character, one trait already stood out prominently even in his student days—the serious view he took of life as regards its duties and responsibilities. Along with his keen sense of humor, his cheerful disposition and wholesome optimism, he appeared constantly to have a burning desire to do something for the elevation of his fellow-man, for the betterment of the community. To him the world was not merely a playground, but rather a theatre for action and endeavor. Even in his hours of greatest relaxation and amid scenes of animation, one might almost fancy he was studying how not to let the dynamic power of the occasion go to waste in idle joy, but rather to enchain it and turn it into some channel of permanent usefulness. We all know how this characteristic of service and accomplishment for the good of his fellow-beings was illustrated in his subsequent career.

In concluding I will say it has been a great comfort to me to have had an opportunity of offering this slight tribute to the memory of an esteemed fellow-worker, delightful companion and beloved friend.

## A PERSONAL REMINISCENCE

By William J. Hammer

IT AFFORDS me pleasure to give a few reminiscences of Dr. Morris Loeb, while he was a student at Berlin in 1883 and 1884, during which period I was in that city and came into intimate contact with him. I might add that the friendship then cemented existed up to the time of his recent untimely death, a period of nearly thirty years.

Doctor Loeb, whose fund of good humor has ever been proverbial to those who knew him, entered heartily into the spirit of the gatherings of the American Club, where we met weekly to talk of home, of America and American happenings, to sing college songs, swap experiences and play pranks on each other, and unlucky the wight who inadvertently told a German joke or even made a play upon a German word on that auspicious evening for a dozen hands would eagerly reach for the "fine-box" which always rested in the center of the table, which was quickly passed to him for a contribution.

I well remember Loeb's efforts to initiate me into the delights of "Münchener," "Pilsner" and "Würzburger," for while I in common with the rest of the party vigorously "salamandered" with my beer-seidel by reason of my temperance proclivities, I confined my libations to "Himbeersaft," "Limonade" or mineral water and many a time did Loeb surreptitiously swap seidels with me, hoping to surprise me with a real quaff of the Teutonic nectar.

We both belonged to an Art club which the American students had organized and, as many of us had visited

the various European art galleries or hoped to do so, we prepared papers and discussions upon the various schools of art and the works and characteristics of the great masters. On these subjects Doctor Loeb, who had been brought up in an artistic atmosphere and who had traveled extensively, was a valuable confrère. At times he would entertain us by playing upon his favorite instrument—the cello—being accompanied by his brother James on the violin, and at times by others on the piano.

We also both belonged to a fencing club in Friedrichstrasse where I remember getting a good deal of amusement and exercise from bouts with the foils with Doctor Loeb, and at times we even assayed the "Schlaeger" or broadsword.

Loeb in his Berlin days dearly loved a joke, and one prank which he played upon me I shall relate for he never ceased to remind me of it, and reverted to it only a short time before his death.

He and his brother James, a student at Harvard, who was visiting his brother Morris in Berlin, and myself, during our vacation, took an eight days tramp through the "Black Forest" and Thuringia; each of us was equipped with a knapsack strapped to his back, and a stout staff. This trip has remained as one of the most pleasurable reminiscences of my life, but on one occasion after a long, hot, dusty mountain climb, I discovered to my disgust that in addition to the usual impedimenta which I carried in my knapsack there reposed a couple of large rocks which the mischievous Loeb had surreptitiously inserted. This afforded him great enjoyment and, although I later repaid him in like coin, he never forgot nor permitted me to forget my own experience.

During our expedition we came across a small village

fête at which an itinerant photographer was doing a land-office business with the American "tintype" which has shortly before been introduced into Germany, and we prevailed upon the "Professor" to make a tintype of our trio taken from the rear and showing us walking down the mountain road with our knapsacks on our backs. The simple-minded country folk who were much interested in the "Amerikanische Schnellphotographie" looked on in amazement at the "verrückter Amerikaner" who wasted their good money in having pictures taken of their backs. Doctor Loeb told me only recently that he still possessed his tintype and I still retain my copy.

One Fourth of July while in Berlin we played a noteable game of baseball on Tempelhofer Feld, the military exercise ground in Berlin, with the American students of Göttingen University, some two hundred miles away. As I remember, Loeb played in the outfield while the writer endeavored to receive the offerings of a former Yale pitcher, whose name I have forgotten. I remember that we thrashed the visitors soundly, but we made amends by paying half their expenses and entertaining them and the rest of the Berlin Americans that evening at an elaborate dinner and dance and a fine display of fireworks at the Berlin Zoological Garden, a section of which we had hired for the occasion. I remember that on another occasion we entertained Mr. Henry M. Stanley, the African explorer, at a Thanksgiving dinner in which, besides our club, the American Colony participated.

## TRIBUTE AT THE GRAVE

By Theodore W. Richards

A PROFOUNDLY touching loss has come suddenly and unawaited upon us, and has gathered us all together here. We cannot now give voice to the depth of our feeling, and we cannot now estimate the magnitude of our common bereavement. We who are here mourn one who was very dear to us in his unselfish devotion and friendship; Harvard mourns one of her most loyal and generous graduates; science has lost a wise and far-seeing enthusiast; and the country one of its most public-spirited and philanthropic citizens.

I am here not only as an individual, and to speak for the science of chemistry, but also as a messenger from Harvard University, to bear our tender sympathy to the relatives of one of Harvard's most cherished sons, and to express our deep gratitude for a life of high purpose and achievement.

The future alone will show how greatly humanity has been benefitted by this modest and noble spirit, for many of his benefactions were such as will bear fruit increasingly in the time to come.

## EXPRESSIONS BY AMERICAN SCIENTIFIC SOCIETIES

### RESOLUTIONS OF THE NEW YORK SECTION OF THE AMERICAN CHEMICAL SOCIETY

WHEREAS Morris Loeb was a member of the New York Section of the American Chemical Society for twenty-one years serving it in every official capacity from time to time; and

WHEREAS Morris Loeb gave generously of his sympathy to all, being especially helpful and stimulative to the younger members, while remaining a cheerful companion to those of his own age; and

WHEREAS Morris Loeb labored in and out of season to make the Section a power for well being in behalf of the City; and

WHEREAS Morris Loeb in his devotion to the Section labored ever faithfully for the welfare of the American Chemical Society, taking constant pride in promoting the dignity and prestige of America in the science of chemistry; and

WHEREAS the unselfish service of such a man creates a responsiveness that is real affection; be it

RESOLVED, That the New York Section of the American Chemical Society record its profound appreciation of Morris Loeb as a distinguished man of science, as a loyal, ever unselfish member of the Section with wide human interests. In his loss we have deep grief; in remembering him, we shall do so with affection.

L. H. BAEKELAND,
CHARLES BASKERVILLE,
MAXIMILIAN TOCH.

## ACTION OF THE CHICAGO SECTION OF THE AMERICAN CHEMICAL SOCIETY

AT a meeting of the Chicago Section of the American Chemical Society on October 18, 1912, it was ordered by a rising vote that the chairman and secretary of the Section draw up a suitable expression of sympathy of the members of the Section to his family and associates in the Chemists' Club, and of the deep regret felt in the untimely loss of Morris Loeb, the President of the Chemists' Club of New York, and the friend of all chemists in America.

In the death of Morris Loeb the chemists of Chicago feel that America has lost not only a scientist of great scholastic attainments and a public-spirited citizen, but many of its members feel as well the loss of a near personal friend.

Therefore, be it resolved that this motion be spread upon the minutes as an expression of our appreciation of the friendship and work of Professor Loeb, and that a copy of this resolution be sent to his family and to the Chemists' Club of New York.

ARTHUR LOWENSTEIN,
*Committee Chairman.*
D. K. FRENCH,
*Committee Secretary.*

## RESOLUTION OF THE CHEMICAL SOCIETY OF WASHINGTON

(SECTION OF THE AMERICAN CHEMICAL SOCIETY)

THE Washington Chemical Society has learned with grief and deep regret of the death of Dr. Morris Loeb.

We recognize the passing of a patriot, a zealous and public-spirited citizen, a many-sided scholar, a friend and benefactor of his fellow-men. Especially do we recognize Doctor Loeb's distinction in the science of Chemistry and the loss that has come to this science and to American Chemists.

To the Chemists' Club of New York, which by the death of Doctor Loeb loses its President, and through the Club to his family, friends and colleagues, we extend our sympathy and condolences.

FRANK K. CAMERON,
F. W. CLARKE,
R. E. DOOLITTLE,
CHARLES L. PARSONS,
*Committee.*

October 10, 1912.

## RESOLUTIONS OF THE NEW YORK SECTION OF THE SOCIETY OF CHEMICAL INDUSTRY

WHEREAS the members of this Society have learned with deep sorrow of the death of their fellow-member, Morris Loeb; and

WHEREAS they wish to express their high appreciation of his noble and beneficent life,

Now, therefore, be it resolved that the following Minute be spread upon the records of this meeting, that a copy be sent to the Society's *Journal* for publication, and that a copy be suitably engrossed and forwarded to Mrs. Loeb.

Morris Loeb, chemist, investigator, educator, upright and useful citizen, altruist, philanthropist, generous patron and benefactor of arts, of sciences and of all good works, ever ready to bear more than his share of the burdens of the community and always to be found on the side of righteousness, justice and truth, lived his life of quiet power without arrogance or display, always modest concerning his own distinguished career and many accomplishments, with charity towards all and unkind criticism of none, a courteous, considerate, genial and polished gentleman of high ideals, whose chief aim and purpose was to be of assistance to his fellow-man, and who realized to the full that the highest reward of service is the privilege of having been of service.

Now that the temporary scaffolding of life has fallen away, the true nobility of his character stands clearly revealed in all its commanding beauty and dignity, an imperishable monument of a life's work well done and a worthy inspiration to others. Such manhood is the real glory of any country. The world is the better for

his having lived in it, and we are the better for having known him.

MARSTON T. BOGERT,
CHARLES F. CHANDLER,
W. H. NICHOLS,
*Committee.*

## RESOLUTION OF THE CANADIAN SECTION OF THE SOCIETY OF CHEMICAL INDUSTRY

WHEREAS the Montreal Members of the Canadian Section of the Society of Chemical Industry have learned with deep regret of the death of Dr. Morris Loeb, of New York, on October 8, 1912, and

WHEREAS they desire to express their appreciation of his lovable personality and his faithful efforts on behalf of this Society, be it

RESOLVED, That the Members at this, their first Meeting held in Montreal since his untimely death, record their profound sorrow at the loss of one of the Society's distinguished Members, who was such a zealous and liberal Patron of Sciences and Arts, and, be it further

RESOLVED that a copy of this resolution be sent the family of the deceased, and to the President of the Chemists' Club, New York City.

R. F. RUTTAN,
*Chairman.*
JOEL B. SAXE,
*Resident Secretary.*

## RESOLUTIONS OF THE NEW YORK SECTION OF THE VEREIN DEUTSCHER CHEMIKER

WHEREAS it has pleased Almighty God to remove from among us our fellow-chemist, Professor Morris Loeb, therefore be it

RESOLVED that we hereby express the deep sorrow which we feel at his untimely death.

RESOLVED that in the death of Professor Morris Loeb, the American chemical profession has lost a most valuable member; one whose character as a man and ability as a chemist commanded the highest esteem of all his associates.

RESOLVED that we extend our heartfelt sympathy to his family in their affliction.

RESOLVED that these resolutions be spread upon the minutes of the Verein, and that a copy be sent to the family of the deceased.

EMIL SCHILL,
E. A. WIDMANN,
H. SCHWEITZER,
*Committee.*

October 9, 1912.

# EXPRESSIONS OF FOREIGN SCIENTIFIC SOCIETIES

## IMPERIAL ACADEMY OF ST. PETERSBURG

RIGA, Nov. 23, 1912.

THE CHEMISTS' CLUB,
*Herrn Secretair J. E. Teeple,*
*New York:*

Aus Ihrem Schreiben an die Kaiserl. Akademie der Wissenschaften in St. Petersburg habe ich erfahren, dass der Präsident Ihres Chemists' Club, Herr Morris Loeb, gestorben ist. Es ist mir in diesem Anlass ein Herzensbedürfnis, Ihnen mein tiefes Beileid auszusprechen. Nicht nur der Club hat einen hervorragenden Präsidenten und Chemiker verloren, auch wir Fernstehenden betrauern den Verlust eines Kollegen, welcher uns, Gästen des grossen amerikanischen Volkes während des VIII. Internat. Congresses für angewandte Chemie in New York, so viel Freundlichkeit, Rat und Beistand erwiesen, und damit uns den Aufenthalt in der Neuen Welt, sowie im Chemists' Club unvergesslich gemacht hat.

In aufrichtiger Hochachtung,

PROF. DR. P. WALDEN.

## THE FARADAY SOCIETY

LONDON, October 30, 1912.

THE SECRETARY,
*The Chemists' Club,*
*New York City:*

DEAR SIR—I am desired by the Council of the Faraday Society to acknowledge the receipt of yours of the 16th instant containing a minute with reference to the la-

mented death of Morris Loeb, President of your Club, and I am desired by the Council to offer you their sincere condolence in the great loss your Club has sustained.

F. S. SPIERS,
*Secretary.*

SOCIEDADE CHIMICA PORTUGUEZA

LISBOA, em 11 de December de 1912.

THE CHEMISTS' CLUB,
*New York:*

GENTLEMEN—The Sociedade Chimica Portugueza upon the motion of its President, has unanimously resolved to inscribe in its minutes its deep regret at the loss of Dr. Morris Loeb from the ranks of chemical workers by his premature death at Seabright, New Jersey, on the eighth of October.

The Sociedade Chimica Portugueza begs to tender to the Chemists' Club of New York the expression of its sincere regret at the death of its distinguished President, Dr. Morris Loeb, whose noble character and devotion to chemical research, its members had learned very fully to appreciate.

A. J. FERREIRA DA SILVA, *President.* DR. HUGO MASTBAUM, *Honorary Secretary.*

UNIVERSIDADE DO PÔRTO

FACULDADE DE SCIENCIAS

PORTO, le 10 janvier, 1913.

M. LE PRESIDENT DU "CHEMISTS' CLUB,"
*New York:*

MONSIEUR—Je dois vous informer que le Conseil de la Faculté des Sciences de l'Université de Porto, sous proposition de M. le Prof. Ferreira da Silva a deliberé

vous faire parvenir l'expression de ses sentiments de regret par le decés de votre ancien President, M. le Prof. Morris Loeb.

Veuillez agréer, Monsieur, l'assurance de mes sentiments de haute consideration.

*Le Directeur de la Faculté,*
JIRIO ARROYA.

R. UNIVERSITÀ DE BOLOGNA
LABORATORIO DI CHIMICA GENERALE
BOLOGNA, 12. Nov., 1912.

CHIARISSIMO COLLEGA:

Col più profondo dolore apprendo la tristissima notizia della morte del Dr. Morris Loeb che così improvvisamente tolse della vita un uomo eminente ed attivo.

Porgo a Lei ed agli illustri Colleghi del Chemists Club di New York l'espressione del mio profondo cordoglio.

Con la massime stima,
Devot^mo
G. CIAMICIAN.